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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,082	10/16/2001	Vardarajan R. Iyengar	DP-305851 7500/95	5556

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,082

Applicant(s)

IYENGAR ET AL.

Examiner

Thomas J. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15, 17-19, 21-23 and 29-34 is/are allowed.
- 6) ☒ Claim(s) 12, 16, 20 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed May 6, 2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12, 16, 20, 24 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,103,397 to Ikemoto et al.

Re-claim 12, Ikemoto et al. discloses a method for controlling a damping force of a damper, the method comprising: generating a first operating current (I_i) as a function of a desired force level of the damping force (see figure 6b step 400); determining a scale factor (K_i) as a function of an operating temperature of the damper (column 13 lines 41-42); generating a second operating current (I_{ii}) as a product of the first operating current and the scale factor (see figure 6c step 410); providing the second operating current to the damper (as part of step 460, column 14 lines 21-24), thereby controlling the damper force as a function of the desired force level of the damping force and the operating temperature of the damper.

Re-claim 16, Ikemoto et al. discloses a device for controlling a damping force of a damper, the device comprising: a first module generates a first operating current (I_i) as a function of a desired force level of the damping force (see figure 6b step 400); a second module determines a scale factor (K_i) as a function of an operating temperature of the damper (column 13 lines 41-42) and generates a second operating current (I_{ii}) as a product of the first operating

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current and the scale factor (see figure 6c step 410), wherein the second module provides the second operating current to the damper (as part of step 460), thereby controlling the damper force as a function of the desired force level of the damping force and the operating temperature of the damper.

Re-claim 20, Ikemoto et al. discloses a system comprising: a damper operable to provide a damping force in response to a reception of a first operating current (I_{li}); a controller; the controller generates a second operating current (I_l) as a function of a desired force level of the damping force; the controller determines a scale factor (K_l) as a function of an operating temperature of the damper (step 410, figure 14 and column 13 lines 41-42); the controller generates the first operating current as a product of the second operating current and the scale factor (step 410), the controller provides the first operating current to the damper (step 460 and column 14 lines 21-24).

Re-claim 24, Ikemoto et al. discloses a system comprising: a damper operable to generate a damping force; a controller including a first module operable to generate a first operating current (I_l) as a function of a desired force level of the damping force; a second module operable to determine a scale factor (K_l) as a function of an operating temperature of the damper (column 13 lines 41-42), the second module further operable to generate a second operating current (I_{li}) as a product of the scale factor and the first operating current, the controller is operable to communicate the second operating current to the damper (step 460 and column 14 lines 21-24).

Re-claims 26-28, the controller includes a third module to generate a signal indicative of an ambient temperature of the damper, a measured temperature of the damper, and an estimated

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temperature of the damper. Each value is determined in part with the signal from temperature sensor 195.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikemoto et al. in view of US 5,788,028 to Bieber.

Ikemoto et al. fails to teach the damper including a magnetorheological fluid. Bieber teaches a magnetorheological fluid damper with temperature compensation. It would have been obvious to one of ordinary skill in the art to have utilized the teachings of Ikemoto et al. with regards to temperature compensation control in a magnetorheological fluid damper as taught by Bieber, thus improving the control of a magnetorheological damper with varying temperature conditions.

Allowable Subject Matter

7. Claims 13-15, 17-19, 21-23 and 29-34 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to anticipate or render obvious a method and device for controlling a damper, wherein a scale factor and an offset value as a function of an operating temperature of the damper and a relative velocity of the damper are determined, and wherein an operating current for the damper is modified by the scale factor and the offset value, thereby controlling the damper as a function of the operating temperature of the damper and the relative velocity of the damper.

Response to Arguments

9. Applicant's arguments filed May 6, 2004 have been fully considered but they are not persuasive. As stated in the above rejection it is believed that each and every limitation of independent claims 12, 16, 20 and 24 have been addressed. The phrase comprising in the preamble does not preclude the existence of other features in the prior art. The temperature compensated currents are in fact provided to the solenoids of the pressure control valves via step 460. Clearly the values provided for at step 460 take into account the temperature compensated currents. Therefore, the temperature compensated currents are in fact provided in a manner of speaking to the solenoids of the pressure control valves. The arguments submitted regarding the temperature compensation currents are more specific than the claim language. The instant claims, nor the specification, preclude the temperature compensation currents from being further conditioned prior to being provided to the solenoids of the pressure control valves.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached at (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

July 21, 2004

THOMAS WILLIAMS
PATENT EXAMINER

Thomas Williams
Au 3683
7-22-04